

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application,

Listing of Claims

Claims 1-18 (canceled)

19. (New) A silicon-backed microdisplay comprising:
a silicon substrate;
a silicon-side conductive layer disposed on the silicon substrate;
a silicon-side passivation layer 2000-6000 angstroms thick disposed on the silicon-side conductive layer;

a cover glass;
a glass-side conductive layer disposed on the cover glass;
a glass-side passivation layer of a predetermined material and thickness disposed on the glass-side conductive layer; and

liquid crystal material sandwiched between the glass-side passivation layer and the silicon-side passivation layer;

wherein the glass-side passivation layer is 300-900 angstroms thick and comprises a material selected from the group consisting of CeO₂, In₂O₃, MgO, SnO₂, Ta₂O₅, TiO₂, Y₂O₃, SiO₂, ZnO, Al₂O₃, BeO, MgF₂ and combinations thereof,

such that the work function balance of said silicon-backed microdisplay is in the range of approximately 0.2eV to 0.4eV.

20. (New) A silicon-backed microdisplay as in claim 19, and wherein the silicon-side conductive layer comprises aluminum.

21. (New) A silicon-backed microdisplay as in claim 19, and wherein the silicon-side passivation layer comprises a silicon dioxide layer in combination with a silicon nitride layer.

22. (New) A silicon-backed microdisplay as in claim 19, and wherein the glass-side conductive layer comprises a material that includes Indium-tin oxide, has a characteristic resistance in the range of 100-500 ohms/square and a light transmissivity of 90% or greater.

23. (New) A silicon-backed microdisplay as in claim 19, and wherein the combination of the glass-side passivation layer and the glass-side conductive layer has an overall transmissivity of 90% or greater and a reflectivity of less than 1%.